OLAO Lean Six Sigma (LSS) Green Belt Project Support

This document provides information about Lean Six Sigma (LSS) project mentoring facilitated by OLAO and demonstrates how applying an effective LSS project can provide a significant return on investment (ROI) to your office and customers.

Why Lean Six Sigma?

Budget cuts are forcing NIH – like all federal agencies – to find innovative methods to accomplish the same level of productivity with fewer resources. To deliver on its mission to support NIH customers, OLAO invested in developing and maturing an LSS Program to improve productivity, quality, customer satisfaction, and efficiency while reducing cost and waste.

> ***"90%***
>
> ***of failed LSS projects are a result of lack of mentorship and leadership engagement."***
>
> **-Mikal Harry**
> Founder of Six Sigma Academy

The LSS methodology provides a rigorous, proven process improvement approach to addressing tough business problems and empowers staff to continuously improve the organization. OLAO is committed to building the process improvement capability organically by deploying a LSS program that fosters a culture of quality and reduced waste. This culture begins with developing LSS practitioners across NIH called Green Belts (GBs). Certified GBs are staff trained in LSS who carry out improvement projects. To be a certified GB, a candidate must attend the OLAO LSS GB course, pass the proficiency exam, and complete a LSS project.

LSS Project Impact

Lean Six Sigma projects provide organizations with two key benefits:

- **Process improvement** within the organization to reduce errors or eliminate waste, often resulting in significant returns on investment (ROI).
- A **learning experience to develop staff** who can continue to provide impactful solutions to the organization long after the initial mentoring investment.

OLAO mentorship provides:

- *Effective coaching of GBs from project initiation to certification*
- *Efficient task management to assist projects to close on time*
- *Improved project quality*
- *Improved ROI from projects*
- *Just-in-time training to supplement GB training*

ICs realize significant savings by using their own people to solve their own organization's challenging problems in a condensed timeframe, avoiding potentially significant costs associated with contractor involvement or long-term projects. Furthermore, the lessons learned by the Green Belt candidate can easily be imparted on new projects to further enhance value to the organization.

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LSS Green Belt (GB) Project Mentor Support

LSS GB Project FY20 Mentorship Costs

Project mentorship by a certified Black Belt has a cost component for staff outside of OLAO to help the office recoup its own costs for this mentorship. Project mentorship by a NIH OLAO Program certified or approved Black Belt is required to obtain OLAO's LSS GB certification to ensure the candidates are up to the standard of a certified GB. To further reduce the cost to ICs, OLAO can offer discounts based on multiple candidates being mentored concurrently as they conduct one improvement project. Our Black Belt can help you organize the project in a way that achieves desired organizational outcomes while providing up to three candidates the required experience to meet certification requirements. Mentoring rates are highlighted below.

Key Assumptions: Projects that are delayed due to organizational challenges outside of project related issues may increase project mentorship resources and thus drive up the per project costs. Below are additional assumptions used in developing the pricing analysis.

- GB candidates will have full support from their respective organization's leadership.
- Candidates will identify a viable LSS GB level project.
- Candidates will have the opportunity to work on their LSS projects.
- Candidates agree to complete projects within six months of the project kickoff date.
- Project support costs are based on number of GB candidates per project.

LSS Mentor*	Number of GB Candidates	Total Project Mentorship Hours	Cost	Cost per Candidate**
OLAO BlackBelt	1	60	$8,000	$8,000
	2	80	$10,000	$5,000
	3	100	$12,000	$4,000

Notes:
**An NIH OLAO LSS Black Belt or an NIH approved Black Belt is required to mentor a candidate's LSS Green Belt project to support OLAO LSS certification.*
***Cost per person decreases with more candidates because the number of hours to provide project mentoring does not increase linearly per candidate. In other words, larger teams will need slightly more hours of support overall but will not need double or triple the amount of support with two or three GB candidates.*

OLAO LSS Training & Project Mentoring Past Performance

- LSS Green Belt training provided to **450+** NIH team members from **34** Institutes, Centers, and Offices.
- **80+** NIH employees have been mentored through the OLAO Green Belt certification program, successfully completing **40+** improvement projects.
- Successful project outcomes have included:
  - Achieved 100% accountability of lab-grade freezers; accounting for $10M worth of property.
  - Reduced inventory shortages by 47% to levels less than 2% of all NIH inventory; accounting for $27.4M in assets.
  - $7.5M in cost avoidance from reconciling 20% of inventory overages.
  - Created a tool that facilitates procurement projections and standardizes reporting. Realized $364K in cost avoidance.
  - Automated the metric generation process, reduced process time by 99.5%, eliminated 99% of human errors, and realized $13.5K in cost avoidance.

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LSS Green Belt (GB) Project Mentor Support

What makes up the 6 months of mentoring?

1. Define Phase	4-6 weeks
• Project Charter	1-3 meetings
• SIPOC Analysis	1 meeting
• As-is / Baseline Process Map	1-6 meetings
• Voice of the Customer & Voice of the Business (VOC/VOB)	.5 meetings
• Stakeholder Analysis	.5 meetings
2. Measure Phase	**4-6 weeks**
• Operational Definitions	.5 meetings
• Data Collection Plan	.5-2.5 meetings
• Baseline Data (Data Collection)	2-8 meetings
• Baseline Statistics	1-2 meetings
3. Analyze Phase	**4-8 weeks**
• Root Cause Analysis – Fishbone Diagram	1-2 meetings
• Failure Modes and Effect Analysis – FMEA	2-6 meetings
• Prioritized Root Causes	1 meeting

4. Improve Phase	4-6 weeks
• Potential Solutions	1-3 meetings
• Evaluation of Potential Solutions	1 meeting
• Prioritized List of Solutions	.5 meetings
• Quick Wins	.5 meetings
• Pilot (Not all projects have this)	0-8 meetings
• To-be Process Map	1-4 meetings
• Financial Benefit Estimate	1-2 meetings
• Goal Achievement	1 meeting
5. Control Phase	**2 weeks**
• Approved Solution & Implementation Plan – RACI Chart	.5 meetings
• Revised Process Documentation	.5 meetings
• Process Control Tool	.5 meetings
• Process Control – Response Plan	.5 meetings

Project Deliverables

Define	Measure	Analyze	Improve	Control
• Project Charter • SIPOC Analysis • As-is / Baseline Process Map • Voice of the Customer & Voice of the Business (VOC/VOB) • Stakeholder Analysis	• Data Collection Plan • Operational Definitions • Baseline Data • Baseline Statistics	• Root Cause Analysis – Fishbone Diagram • Failure Modes and Effect Analysis – FMEA • Prioritized Root Causes	• Potential Solutions • Evaluation of Potential Solutions • Prioritized List of Solutions • Quick Wins • To-be Process Map • Financial Benefit Estimate • Goal Achievement	• Implementation Plan – RACI Chart • Revised Process Documentation • Process Control Tool • Process Control – Response Plan

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